

Transportation Management Center Pooled-Fund Study Annual Meeting
National Highway Institute, Arlington, VA
May 15-16, 2001

Minutes

Tuesday, May 15

8:00 AM Introductions, Welcome, & Opening Remarks (Tom Granda, FHWA)
 -FHWA Welcome:
 Dennis Judycki, Director
 Office of Research, Development, & Technology
 Stressed importance of keeping studies tied to policy – relevant. Urged
 members to keep up with what other organizations are doing in this ar-
 eas to avoid redundant research.

Jeff Lindley, Director
Office of Travel Management

Indicated that the TMC Pooled-Fund study served as a model for the
HOV Pooled fund study that is just getting underway.

-Introduction of New Members

Georgia	New Jersey
Michigan	Pennsylvania
Nebraska	I-95 Corridor Coalition

Attendees:

Manny Agah	AZ	Mark Newland	IN
Robert Copp	CA	Michael D. Floberg	KS
William W Stoeckert	CT	Rick Bennett	MO
Kamal Hamud	DC	Paul Cammack, P.E.	NE
Gene S. Donaldson	DE	Dottie Shoup	NE
Jon T. Obenberger	FHWA	Kurt Aufschneider	NJ
Thomas M. Granda	FHWA	Michael E. Hartman	NY
Randall VanGorder	FHWA	Daniel D. Leonard	PA
Lap T. Hoang	FL	Cynthia Levesque	RI
Mark Demidovich	GA	Dennis Collins	SAIC
Marygrace Parker	I-95 Corridor Coalition	Vaughan Inman	SAIC
Jeffrey Galas	IL	Mike Freitas	FHWA

Tom Granda emphasized that TMC Pooled-Fund Study is a partner-
ship. Urged members to become more involved.

There was some discussion of relationship of TMC Pooled-Fund Study
to TMCC conference in Virginia Beach. Manny suggested scheduling
TMC PFS meeting and TMCC at same time. Dottie Shoup indicated
that one possibility for the next TMCC meeting is to put it on an ITS

America/ITE meeting track. Purpose of TMCC is to bring together people who actually work in the TMCs. Jon Obenberger indicated that the TMC conference in Virginia is focused on advancing the practices related to TMC's in Virginia. Other interests from around the country will be making presentations at this conference with the perspective of identifying issues and relaying their experiences to individuals in Virginia. FHWA is sponsoring a national TMC focused conference in July in Newark, New Jersey, the 4th conference on Integrated Transportation Management Systems. FHWA is also committed to sponsoring 1 national TMC conference focusing on TMC's in 2002. FHWA is interested in working with all individuals and professional organizations that are interested in planning and hosting a national TMC conference in 2002. Individuals who are interested in supporting or participating in the planning this conference should contact Jon Obenberger. The planning and coordination related to this conference will start sometime this fall after ITMS Conference and National Transportation Operations Summit is held this coming October.

8:30 Review Agenda & Action Items (Co-chairs: Stoeckert/Copp)

8:40 Pooled-Fund Study Funding Status (Granda)
 -Commitments and Obligations 2000-2001

\$352,000 was obligated in 2000
 \$522,000 has been obligated this year (FY2001)
 \$60,000 additional is expected to be obligated by July 1, 2001.
 Thus the total funding available for 2000-2001 is \$934,000.

-Planned Expenditures 2000-2001

The following expenditures are committed to previously approved projects or activities:

Operator Requirements Matrix:	\$199,842
CMS Message Guidelines:	\$149,953
Maintenance Concept & Plans:	\$249,841
Configuration Management:	~\$250,000
Annual Meeting Travel:	~\$ 10,000
TMC PFS Website Support:	\$ 10,000

Thus in 869,636 expenditures have been committed to date.

Correction: Commitment to web site was \$25,000, not \$10,000 as shown at meeting. Thus committed expenditures are actually \$894,636, not the \$869,636 shown at meeting.

-Proposed Commitments & Level of Expenditures in 2002

Members have committed \$402,000 (but not obligated) by for 2002. In addition, if everyone who has not yet committed funds for 2002 contributes at the same level as this year, we can expect an additional \$180,000. Funds remaining from 2000-2001 plus committed or anticipated contributions for 2002 total \$646,364. It was recommended that we keep the projected cost of new projects to be approved at this meeting under that total.

A question was raised about the recommended minimum contribution level for members of \$50,000, because it is apparent from the totals that some members have contributed less. Robert Copp explained that originally there was no recommended commitment level, but that the required level was always one of the first questions potential new members asked. The recommended minimum was intended to fill that need. There is still no absolute minimum and it is important for all TMC interests to join the TMC PFS regardless of the level of funding that they are able to initially contribute. Members are encouraged to increase their contribution level to the TMC PFS over subsequent years, to allow additional resources to be available to produce additional TMC projects that address the needs that the members identify.

-Solicitation for 2003

Because most states start their fiscal year in July and they make commitments with their SP&R funds prior the beginning of this new fiscal year, the solicitation for participation in the TMC PFS for 2003 will be released in June this year, rather than in the fall, as we have done in previous years. This will allow more states to consider the TMC Pooled-Fund Study during their normal planning period.

9:00

Review Progress on Current Projects (Co-chairs: Stoeckert/Copp)
-Project Member Roles and Expectations (Obenberger)

Jon reiterated the importance of Champions and Supporters to our projects and asked members to consider identifying additional supports for projects, especially those that currently have only one or two. The schedule for each project will be developed, kept current, and made available for each project on the project portion of the TMC PFS web site, along with the project champion and project supporters. Intent is to identify and involve the supporters for each project in the initial development of the scope for each project.

-Operator Requirements Matrix (Inman)

This project kicked off on May 1. Prime is PB Farradyne. MRF, a personnel management-consulting firm, will play a key role in KSA identification. Goal is to provide managers with tools they can use to clas-

sify, recruit, retain, and train TMC operators. Members will be contacted to request function and task information. Some members may be asked for additional assistance in determining what their operators do -- beyond what their documents say they do. Project will complete in April '02 so that products can be reviewed at next annual meeting. Because TMCs differ so much from agency to agency, the intent of this study is not to produce standards.

-Guidelines for Variable Message Sign Messaging (Inman)

Kicked off on May 7. Principle investigator is Conrad Dudek of the Texas Transportation Institute. Two primary products: recommended guidelines for CMS that may be appropriate for incorporation in MUTCD as guideline or standard, and recommendations for further research. Because of Dr. Dudek's schedule conflicts this task will not complete before the next TMC PFS annual meeting. However, Dr. Dudek has committed to providing at least the highest priority CMS research needs prior to our next meeting so we can consider those needs in selecting new projects. Kurt Aufschneider recommended that we look at the CMS report Dudek is doing for New Jersey to avoid overlap.

-TMC System Maintenance Concept and Plans (Obenberger)

Kicked off on May 1. Purpose is to provide technical guidance on how to develop and conduct systematic transportation management system maintenance program. All deliverables are due well before next annual meeting. Cary Vick of PB Farradyne is PI. Sampling plan and list of issues to be covered will be distributed to members in next 4 weeks. Issues will include best practices. Will encompass TMC system, which includes field elements. Question was raised as to how maintenance issues will be organized. Jon indicated that this has not been decided yet beyond 3 sections for Plans, Multiyear Plans, and day-to-day practices. Contractor will propose organization when it submits outline for report. Members that have documentation they wish to contribute now should send it to V. Inman who will pass in on to Cary.

-Configuration Management for TMCs (Obenberger)

This task has been submitted to the contracts office. The Kickoff meeting is likely to be held the week of June 18-22 (after ITSA meeting). All materials will be posted on TMC PFS web site (see next entry).

-TMC Pooled-Fund Study Web Site (Obenberger)

Jon walked through the site: <http://www.tmcdfs.ops.fhwa.dot.gov/>

The site has been developed and is operational now, but the domain name cannot be registered until the proper FHWA LAN administrator approves the site. This should happen soon, perhaps within the next couple of weeks. Once the site is online members will be entered into the database so that they can log into the members only portion of the site. We will use this site, rather than e-mail to distribute documents. Members will be notified by e-mail when documents of interest to them are available on the site.

9:45 Break

10:00 Review Progress on Current Projects (Cont.)

11:15 Highway Traffic Operations & Freeway Management (Obenberger)
 -Review of Related National Research Initiatives
 -Review of FHWA's Program & Initiatives
 -Review ITMS Conference Program

Jon provided a presentation that reviewed the current and planned national research activities related to highway traffic operations and freeway management. These issues were reviewed to provide members with an overview of the other national activities that were underway, to avoid duplication, and identify potential areas where TMC PFS activities could build off of these national initiatives. Jon distributed a copy of the FHWA roadmap of planned and funded highway traffic operations and travel management initiatives FY01-03. Handouts on the presentation reviewing the related national research initiatives, FHWA program initiatives, and ITMS program can be accessed on the TMC PFS web site along with these minutes.

12:00 PM Lunch

12:30 Arterial Operations and Traffic Signal Systems (Vince Pearce)
Vince Pearce provided a presentation that reviewed the current and planned national research activities related to arterial operations and traffic signal systems. These issues were reviewed to provide members with an overview of the other national activities that were underway, to avoid duplications, and to identify potential areas where TMC PFS activities could build off of these national initiatives. The contents of his presentation are included in PowerPoint presentation that is available on TMC PFS web site.

1:00 Review List of Potential Projects (Obenberger)

 -Review Process to Identify & Select Projects

1. M. Hartman provided write-up of NY policy on CCTV control and suggested CCTV Privacy as a project. Obenberger had previously distributed to members a copy of a report that was prepared by the FHWA Eastern Resource Center on a similar topic.
2. M. Floberg indicated need for guidance on determining building needs and corresponding floor space requirements for TMC. M. Agah suggested that the Freeway Management Handbook, chap 10, covers some of this. Jon Obenberger indicated that previous national reports have captured information related to the functional capabilities of TMCs, and some of these reports inventories issues such as size. Title's of some of these reports will be forwarded to Mike.
3. Transportation Management Strategies for Special Events

Extensive discussion: Newland—need to quantify benefits of what we are doing. Copp—many agencies are involved in special events. Aufschneider—need guidance on organizational issues and how to overcome. Donaldson—need to emphasis concept of Transportation Management Team. Hoang—TMC or entire special event plan? – ans: entire. Parker—can't define TMC role until special event problem is defined. Need to address TMC role and impact on procurement. Levesque—TMC may not be lead agency. Aufschneider—that's the point; for different events different agencies will lead. Need to address organization – how agencies fit to whole. Parker—Special events are a TMC problem because no other agency is addressing it.

4. Procurement

Minimal discussion due to no specific project proposal being developed or a specific need identified. Question as to whether Operational Concept project would address this issue. Some members were unaware of the various procurement related documents that FHWA has published over the previous five years. Jon Obenberger will distribute a list of these documents to Manny and Cynthia.

5. Acceptance Testing for Transportation Management Systems

Copp asked how this relates to current NCHRP research project proposal. Jon indicated that these were the same project proposals due to the uncertainty of the funding being available to NCHRP to undertake this project in FY03. Manny wanted more information on what elements are included; indicated AZ always does acceptance testing and has plans for all elements. Aufschneider indicated a need for a cookbook on how to do this, but that the front end procurement part is not needed as states differ too much in this area. Donaldson indicated a how-to document is needed and should include procurement ele-

ment. Levesque indicated problem is not is specifying acceptance testing, but rather seeing that it is done. Donaldson indicated that ITOP program is available for ITS procurement and management. Jon Obenberger indicated that a link to the ITOP program web site will be provided on the ITE TMC Committee web site.

6. Freeway System Performance Monitoring and Reporting.

Discussion of need to define what performance monitoring is. What needs to be measured? How do you capture the variables necessary to evaluate incident management? Discussion of relationship of Performance monitoring to the Concept of operations. Donaldson suggested focus on transportation system performance monitoring, and not be limited to only freeways or arterials.

7. Migration plans and Procedures

This project would look at the transition from one system/subsystem to another and how to maintain the operational integrity of the system when planned or unplanned interruptions to the operation of the system occur. Discussion of how this differs from configuration management. Some questioned whether a generic migration-planning document could be useful.

8. Coordinated Freeway and Arterial Operational Plans and Procedures

Although the current proposal tends to describe this task as freeway oriented, it is intended to deal equally with the disruption to travel along both facilities and the corresponding potential impacts to the other facility, e.g., diversions could be from either arterials or freeways. Also it is intended to deal with normal operations as well as incidents. Kurt/Dottie suggested that the problem is institutional. Bennett indicated integration has to address the entire transportation system, not just between traffic signals and ramp meters. A number of people said that examples of interagency coordination have been accomplished and could be presented in the form of best practices.

9. Integrating TMCs and Emergency Services

Copp: Concept sounds like a good one. Obenberger: Needs to address information needs of both the emergency service providers and the transportation managers. Bennett: institutional issues are the biggest. Aufschneider: Need to reword. Cognizant – consistent with national architecture -- TMC, emergency responders, dispatch, call centers, emergency management centers. Very complicated issue.

Parker: There are dozens of institutional issues. They aren't hard to find. Focus on technology options could help people overcome institutional issues. Focus on technical rather than institutional.

Obenberger: indicated the need to add information to assist with how to plan, develop, and maintain interfaces with other systems or agencies to share information (e.g., data, video, or voice). Parker: don't have to evaluate every technology, but should provide a list (laundry) of options. Doesn't have to be exhaustive. Shoup: Menu of options would help if updated frequently. How to get funding to deploy is important. General discussion of the groups involved in emergency management. Indication (e.g., PSAP, OnStar, etc.).

VanGorder: NCHRP research project is planning on doing the same thing that this project appears to address.

Obenberger: a potential gap may exist in the NCHRP project as to the level of detail and actual guidance that can be given to the appropriate stakeholders related to what are their information needs and how to actually begin the process of planning to develop the interfaces to accomplish the desired information sharing.

10. General discussion, comments

Be sure to include sizing of TMC on Concept of Operation study
General discussion of privacy concerns and what is needed.

11. TMC Information Summary Web Site

Hartman indicated the need for a resource that indicates what states have TMCs, contact information, functional capabilities, current projects, and other items in a database. Inman indicated ITS Deployment tracking project has some of this data. Shoup suggested any database that is developed by keyword searchable.

12. TMC Procurement Project

Different kinds of ITS procurement contracts. Types of contracts for field components, consultants, etc. It was pointed out that a class on this already exists.

- Review Current Project Proposals & Identify Potential Changes
- Identify Any Other New Projects

The members agreed to fund a \$25,000 project that would augment the currently available TMC information that is already available and compile information related to current contacts, ongoing studies or projects, etc. This information would be made available within the context that information will be made available

through the ITE TMC Committee web site. This project was approved before to prioritizing and selecting other projects.

A ballot was conducted with each member having 3 votes. The results follow:

Project	Votes
TMC Concept of Operation	12
Freeway-Arterial Coord.	12
Special Events	13
Acceptance Testing	10
Performance Monitoring	7

- 1:30 Develop Final Project Proposals (Co-chairs: Stoeckert/Copp)
-Revise and Develop Individual Project Proposals
-Discuss List of Project Proposals
-Members Prioritize Project Proposals

- 2:15 Break: During Break Members Prioritize Project Proposals
A second tie-breaker ballot was conducted with 1 vote per member.
The results follow:

Project	Votes
TMC Op Concepts	3
Freeway Art Integration	7
Special Events	6
Acceptance	1

- 2:30 Prioritize 2002 Projects (Co-chairs: Stoeckert/Copp)
-Review Results of Project Prioritization
-Revise Project Proposals Based on Review and Comments
-Members Prioritize Project Proposals

- 4:00 Break: During Break Members Prioritize Project Proposals

Marygrace: Special events and Freeway & Arterial projects are very similar. Could do both for only a little more money than one. Suggest combine the two, then could do TMC operational concept.

After some discussion and a show of hands it was decided that the Freeway and Arterial Integration and Special Events projects should be combined into 1 contract to save resources and potentially accomplish both projects. If both projects can not be accomplished as originally proposed, the special events project would not be undertaken and only

one product produced on arterial and freeway coordination. This should allow funding of the TMC Concept of Operations project. The acceptance testing and special events projects will still be developed so that it might be implemented should additional funds become available or if another funding mechanism can be found.

4:15 Select 2002 Projects to Initiate (Co-chairs: Stoeckert/Copp)
 -Review Results of Project Prioritization
 -Select 2002 Projects to Initiate

5:45 Review Day 2 Agenda (Granda)

Will finish @ 10:45 tomorrow.

Wednesday, May 16

8:00 Finalize Project Proposals (Co-chairs: Stoeckert/Copp)
 -Review Scopes of 2002 Projects Selected to Initiate
 -Further Develop Individual Project Proposals as needed

1. TMC Operational Concept and plan

Jon Obenberger briefly discussed the TMC Concept of Operations project. Based on earlier discussions, the project will:

- Have a Transportation Management System focus versus only a freeway or arterial facility focus.
- Show how the concept of operations also addresses other issues such as floor space requirements, hours of operations, need for showers, etc.
- Project will also address what is a concept of operations, what are inputs and outputs, what are components, relationship to operational requirements, facility operational characteristics and problems, and unique stakeholder needs. When project description is revised more structure for the final document will be provided. Also will described analysis process in greater detail.

Need to identify Champions for each project today.

Need to get supporters involved sooner — supporters should review early drafts of the statement of work and have significant input.

Manny Agah volunteered to be Champion for Concept of Operations project. Mike Floberg, Rick Bennett, and Cynthia Levesque volunteered as supporters.

It was agreed that everyone, not just supporters will be on distribution list for drafts.

Lap Hoang requested that the project title be changed to show that it is clearly different from the “green book” that was developed providing a high-level overview of what is an operational concept for TMCs.

2. Freeway-Arterial Coordination

Will include coverage for recurring and nonrecurring events. Will emphasize role of transportation management teams (multi-agency). Other points: What is planning for special event? How does transportation fit within that? What are factors to make special event planning successful? Develop detailed descriptions of *categories* of special events. Address role of technology in demand management. Cover

special event management procedures, performance monitoring, and debriefing/lessons learned.

Dottie Shoup volunteered to be the champion for this project. Mary-grace Parker volunteered to support and provide supporters from other agencies. Manny indicated he would volunteer Barabara Houser (ADOT). Matt Volz was volunteered from Kansas. Mark Demidovich volunteered.

3. Acceptance Testing.

A draft statement of work will be prepared as backup. Champion and supporters were not identified.

4. Discussion of TMC PFS solicitation for 2002 and funding issues.

Kurt Aufschneider suggested that technical points of contact provide feedback to their research directors so that the directors know what value they are getting from the pooled-fund investment.

Bill Stoeckert suggested that the ICDN newsletter is a good way to get the word out to TMCs/potential members.

Jon Obenberger will send out last year's TMC Pooled-Fund Study attachments to get feedback from members before sending out this year's announcement.

10:15 BREAK

10:30 ITE TMC Committee: Progress Report (Obenberger)
- Review of Web Site Capabilities, Initial Committee Charter, 2001 Work Plan, & Volunteers for Steering Committee & Activities
<http://www.tmcite.org>

Jon Obenberger presented overview of ITE TMC website. Overheads are available on request. Indicated that the site is intended to do more than just share information. Champions are needed. Paul Commack volunteered to co-chair. Membership at the site does not require ITE membership.

Remaining TMC PFS Activities for 2002 (Granda)
-Discuss Communication Plan for TMC Pooled-Fund Projects

Formal press releases, notices of availability of information, and web site will provide means of communication.

FHWA staff will provide help to any member who wants to give a briefing/presentation on the TMC PFS

FHWA will develop a TMC PFS Communications Plan of what information will be prepared for different initiatives, when, and where (e.g., announcement of kickoff meetings, availability of Listservs, new members, etc.) This plan will be distributed to members for feedback.

-Identify Tentative Date and Agenda for Next Meeting

There was discussion of when/where to have next TMC Pooled-Fund Study annual meeting. Combining our meeting with others (TMCC, ITS America) was suggested as a way to save travel expenses and allow more members to participate in more than one event. The downside of this suggestion is that members may be exhausted by attending multiple events in sequence. Room conflicts and conflicts with other organizations who may also be piggybacking are also problems. Some members suggested that current place and format was working ok. No decision was made. This issue will be addressed during a future TMC PFS conference call in about 3 months.

-Discuss Schedule and Process to Solicit Participation for 2002

-Distribute Expense Report Packets

-Review Agenda for Optional Afternoon Focus Group Session on Traffic and Road Weather Management

11:45 Lunch

Optional Focus Group Session on Traffic and Road Weather Management

12:15 Traffic Management Weather Focus Group Meeting